

Claims

What is claimed is:

- 5 1. A brush section (19) for an electric powered toothbrush (11) comprising,
a first end having a connector (35) adapted to be joined to a handle section
(10);
a second end containing a head (47), which head (47) terminates in a toe (37);
said head (47) containing a bristle carrier (21) with a first portion (25) closest
10 to said first end, which first portion (25) is generally disk shaped with a
generally circular cross-section;
said first portion (25) has one or more fingers (51) extending therefrom, in a
direction generally distal from said first end;
said bristle carrier (21) has a face (13) extending across said first portion (25)
15 and across said one or more fingers (51) , from which face (13) extends a
plurality of bristle tufts (23);
wherein said face (13) has a shape other than circular or oval;
said handle section (10) contains a driving means which is drivingly engaged
to said bristle carrier (21);
20 whereby in use, the bristles extending from the one or more fingers (51)
provides increased contact with the gingival tissues and enhanced massaging
thereof.
2. The brush section (19) of claim 1, wherein said bristle carrier (21) has one
25 finger (51) extending therefrom.
3. The brush section (19) of claim 2, wherein the face (13) of said bristle
carrier (21) is generally egg-shaped.
- 30 4. The brush section (19) of claim 1, wherein said carrier (21) has two fingers
(51) extending therefrom.
5. The brush section (19) of claim 1, wherein said carrier (21) has three
fingers (51) extending therefrom.

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6. The brush section (19) of claim 1, wherein the bristle carrier (21) has a bottom surface (45) opposite to said face (13), which bottom surface (45) has a front edge (33), said bottom surface (45) is attached to the center of said bristle carrier (21) by a rotational supporting means to a bristle carrier support (31); which bristle carrier support (31) has a first end integral with the head (47) and a second free, toe end (43); the bristle carrier support (31) extends from said head (47) to a point between the toe (37) of the head (47) and the center of said bristle carrier (21), where there is a separation (41) between the free, toe end (43) of the bristle carrier support (31) and the bottom surface (45) of the bristle carrier (21); the front edge (33) of the bristle carrier (21) has a convex curve arcing away from the face (13), the convex curve arc extending further away from said face (13) than the separation (41) in a direction transverse to the face (13).

7. The brush section (19) of claim 6, wherein the convex curve has a radius of curvature of at least about 1 mm.

8. The brush section (19) of claim 6, wherein the free toe end (43) is configured as a convex curve arcing away from the face surface (13).

✓ 9. The brush section (19) of claim 8, wherein the convex curve of the free end (43) has a radius of curvature of at least about 0.5mm. *top*

10. The brush section (19) of claim 1, wherein the plurality of bristles tufts extending from the first portion (25) of said face (13) are arranged in generally concentric rings and the bristles tufts extending from the one or more fingers (51) are arranged in rows (27, 29).

11. The brush section (19) of claim 10, wherein the bristle tufts in said rows (27, 29) are longer than the bristle tufts within the concentric rings of bristle tufts.

12. A method of providing enhanced massage of the oral gingival tissue using an electric powered toothbrush (11) comprising, providing an elongated brush section (19) having a head (47) at one end and a connector (35) at the other

end, which head (47) terminates in a toe (37) remote from said connector (35), which connector is adapted to be connected to a handle section (10); said head (47) contains a bristle carrier (21) with a first portion (25) closest to said connector (35), which first portion (25) is generally disk shaped with a
5 generally circular cross-section; the first portion has one or more fingers (51) extending therefrom in a direction generally distal from said connector (35); which bristle carrier (21) has a face (13) which extends across said circular cross-section of said first portion (25) and across said one or more fingers (51); from which face (13) extends a plurality of bristle tufts (23); wherein said
10 face (13) has a shape other than circular or oval; the handle section (10) being arranged to contain a driving means which is drivingly engaged to said carrier (21); applying said carrier (21) to the gingival tissues, whereby in use, the bristles extending from the one or more fingers (51), providing increased
15 bristle contact with the gingival tissue, enhancing the massaging thereof.

13. The brush section (19) of claim 12, wherein said carrier (21) has one finger (51) extending therefrom.

14. The brush section (19) of claim 13, wherein the face (13) is generally egg-shaped.

15. The brush section (19) of claim 12, wherein said carrier (21) has two fingers (51) extending therefrom.

16. The brush section (19) of claim 12, wherein said carrier (21) has three fingers (51) extending therefrom.

17. The brush section (19) of claim 12, wherein the bristle carrier (21) has a bottom surface opposite to said face surface (13), which bottom surface has a front edge (33) proximate to said toe (37), which front edge (33) is arcuate.

18. The brush section (19) of claim 17, wherein the front edge (33) is arcuate with a radius of curvature of at least about 1 mm.

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19. The brush section (19) of claim 14, wherein the plurality of bristles tufts extending from the first portion (25) of the bristle carrier (21) are arranged in generally concentric rings of bristle tufts and the bristle tufts extending from the finger (51) portion of the carrier (21) are arranged in rows (27, 29).

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20. The brush section (19) of claim 19, wherein the bristle tufts within said rows (27, 29) are longer than the bristle tufts within the concentric rings of bristle tufts.

10 21. A brush section (19) for an electric toothbrush (11) comprising, a first end having a connector (35) adapted to be joined to a handle section (10); a second end containing a head (47), which head (47) terminates in a toe (37), the head (47) and connector (35) are generally aligned along the longitudinal axis of the toothbrush (11); the bristle carrier (21) is centrally supported by
15 rotational means from the upper surface (49) of a bristle carrier support (31); which bristle carrier support (31) has a first end integral with the head (47) and a second free, toe end (43); the bristle carrier support (31) extends from said head (47) to a point between the toe (37) of the head (47) and the center of said bristle carrier (21); the bristle carrier (21) has a front edge (33) which
20 is convex with respect to said connector (35), which convex front edge (33) arcs transversely further from the longitudinal axis of said toothbrush (11) than any point on the upper surface (49) of said bristle support carrier (31), such that in use the users lip or gingival tissue will not be pinched between the front edge (33) of the bristle carrier (21) and the upper surface (49) of the
25 bristle carrier support (31).

22. The brush section (19) of claim 21, wherein the free toe end (43) is a convex arc in relation to said connector (35).

30 23. The brush section (19) of claim 1, wherein the brush section (19) is integrally joined to the handle section (10).